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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/327,594	06/08/1999	HULYA DEMIRYONT	03897.08139	5631

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PETER D MCDERMOTT  
BANNER & WITCOFF LTD  
28 STATE STREET 28TH FLOOR  
BOSTON, MA 02109

EXAMINER

MCNEIL, JENNIFER C

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 04/24/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/327,594

Applicant(s)

DEMIRYONT, HULYA

Examiner

Jennifer McNeil

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillery (US 4,948,677). Gillery teaches a high transmittance, low emissivity article including copper containing layers used as primer layers which are placed between metal and metal oxide films. The copper-containing layer may be copper oxide, and is deposited by sputtering (col. 2, lines 5-20; col. 4, lines 29-44; col. 6, lines 12-15). Regarding claims 10-14, other layers included in the article may be zinc stannate, with a thickness of about 340 angstroms (col. 4, lines 50-55; col. 5, lines 5-10).

Claims 1, 3, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyauchi et al (US 5,942,331). Miyauchi et al teach a colored film-coated glass article and disclose that there are several conventional methods for forming a sunlight-absorbing colored film on a glass substrate. One of the conventional methods is sputtering, and this method is used to form the film from a transition metal oxide such as copper oxide (col. 1, lines 10-30).

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 2, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyauchi et al (US 5,942,331). Miyauchi et al teach a colored film-coated glass article as discussed above. Miyauchi et al teach that the application of copper oxide to glass substrates by sputtering is conventional, but the exemplified coating of Miyauchi et al does not *consist essentially* of copper oxide. While the exemplified coating of Miyauchi may comprise up to 95% CuO (col. 2, lines 60-65), there are other components which impart strength, water resistance, and absorption enhancement to the film. Regarding claim 2, the film may have a thickness of 116-220 nanometers ( Table 2). Regarding claim 9, the glass substrate may be used as a glass plate for automobiles, in which case, it is known in the art to impart a curvature to auto windows, such as windshields. Regarding claims 6-8, the glass plate may be soda-lime silicate glass (col. 6, lines 60-63). While Miyauchi et al does not give a specific example where a film consisting essentially of CuO is sputter deposited onto glass, it would have been obvious to one of ordinary skill in the art at the time of the invention to sputter deposit CuO onto the soda-lime glass at the given thickness, as it is clearly taught by Miyauchi et al that this is conventionally known in the art.

### Response to Arguments

Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's comments concerning Schmitte, this reference contains no mention of sputtered CuO films or any characteristics thereof. Lier et al address polymeric films and also contain no mention of sputtered CuO films, or the characteristics of CuO sputtered films versus films deposited by other means.

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Regarding Miyauchi et al, applicant states that Miyauchi does not teach sputtering. While the coating exemplified by Miyauchi is not sputter deposited, it is acknowledged by Miyauchi that it is conventional to deposit CuO via sputtering.

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer McNeil whose telephone number is 703-305-0553. The examiner can normally be reached on Monday through Friday, 9:30AM-6:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 703-308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



JCM  
April 21, 2002

Jennifer McNeil  
Examiner  
Art Unit 1775



DEBORAH JONES  
SUPERVISORY PATENT EXAMINER